

Application No. 09/768,673
Amendment "C" dated April 11, 2005
Reply to Office Action mailed January 27, 2005

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a network environment that includes a public network and a private ~~corporate~~ network, the public network including a client external to the private ~~corporate~~ network, a method of a communications device of the external client establishing a secure connection over a public network to the private ~~corporate~~ network without restricting the communications device to working through the private ~~corporate~~ network, the method comprising the following: following:

a specific act of the external client establishing a connection with the private ~~corporate~~ network a virtual private network access server of the private network over the public network using the communication device such that, the virtual private network server providing it is as though the external client is part of access to the private corporate network and therefore can access one or more internal resources of as though the external client is part of the private corporate network;

a specific act of the external client providing security to the connection through a communication protocol that resides at or above a socket layer in a protocol stack the external client uses to communicate data;

a specific act of the external client maintaining a session that uses the secure connection to communicate with the private ~~corporate~~ network; and

during at least a portion of the specific act of the external client maintaining a session that uses the secure connection, a specific act of the communication device retaining the ability to establish a separate and distinct connection with another resource outside of the private ~~corporate~~ network.

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2. (Currently Amended) A method in accordance with Claim 1, further comprising:

during at least a portion of the specific act of the external client maintaining a session that uses the secure connection, a specific act of ~~establish~~ establishing a connection with the resource outside of the private ~~corporate~~ network.

3. (Currently Amended) A method in accordance with Claim 1, wherein the specific act of the external client establishing a connection with the private ~~corporate~~ network comprises:

a specific act of using Transmission Control Protocol (TCP) to establish a connection with the private ~~corporate~~ network.

4. (Original) A method in accordance with Claim 3, wherein the specific act of the external client providing security to the connection comprises:

a specific act of the external client using a Secure Socket Layer (SSL) protocol to provide security to the connection.

5. (Canceled).

6. (Original) A method in accordance with Claim 5, wherein the specific act of the external client providing security to the connection comprises:

a specific act of the external client using a Secure Socket Layer (SSL) protocol to provide security to the connection.

7. (Original) A method in accordance with Claim 5, wherein the specific act of the external client providing security to the connection comprises:

a specific act of the external client using a Wireless Transport Layer Security (WTLS) to provide security to the connection.

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8. (Canceled).

9. (Currently Amended) A method in accordance with Claim 8, wherein the VPN access server is implemented on the same server machine as a proxy server that serves the private corporate network.

10. (Currently Amended) A method in accordance with Claim 8, wherein the VPN access server is implemented on a different server machine than a proxy server that serves the private corporate network.

11. (Original) A method in accordance with Claim 1, wherein the public network comprises portions of the Internet.

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12. (Currently Amended) In a computer program product for use in a network environment that includes a public network and a private ~~corporate~~-network, the public network including a client external to the private ~~corporate~~-network, the computer program product for implementing a method of a communications device of the external client establishing a secure connection over a public network to the private ~~corporate~~-network without restricting the communications device to working through the private ~~corporate~~-network, the computer program product including a computer-readable medium having stored thereon computer-executable instructions for performing the ~~following~~, following:

a specific act of the external client establishing a connection with a virtual private network access server of the private network, over the public network using the communication device ~~such that~~, the virtual private network server providing the external client becomes part of access to the private ~~corporate~~-network and therefore can access one or more internal resources of as though the external client is part of the private ~~corporate~~-network;

a specific act of the external client providing security to the connection through a communication protocol that resides at or above a socket layer in a protocol stack the external client uses to communicate data;

a specific act of the external client maintaining a session that uses the secure connection to communicate with the private ~~corporate~~-network; and

during at least a portion of the specific act of the external client maintaining a session that uses the secure connection, a specific act of the communication device retaining the ability to establish a separate and distinct connection with another resource outside of the private ~~corporate~~-network.

13. (Original) A computer program product in accordance with Claim 12, wherein the computer-readable media comprises a tangible computer readable medium.

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14. (Currently Amended) A computer program product in accordance with Claim 12, wherein the computer-executable instructions for performing the specific act of the external client establishing a connection with the private ~~corporate~~-network comprises a Transmission Control Protocol (TCP) module.

15. (Original) A computer program product in accordance with Claim 14, wherein the computer-executable instructions for performing a specific act of the external client providing security to the connection comprises a Secure Socket Layer (SSL) module.

16. (Original) A computer program product in accordance with Claim 12, wherein the computer-executable instructions for performing a specific act of the external client providing security to the connection comprises a Secure Socket Layer (SSL) module.

17. (Original) A computer program product in accordance with Claim 12, wherein the computer-executable instructions for performing a specific act of the external client providing security to the connection comprises a Wireless Transport Layer Security (WTLS) module.

18. (Canceled).

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19. (Currently Amended) In a network environment that includes a public network and a private ~~corporate~~-network, the public network including a client external to the private ~~corporate~~-network, a method of a communications device of the external client establishing a secure connection over a public network to the private ~~corporate~~-network without restricting the communications device to working through the private ~~corporate~~-network, the method comprising the ~~following~~; following:

a step for securely connecting to a virtual private network access server of the private ~~corporate~~-network through a communication protocol that resides at or above a socket layer in a protocol stack that the external client uses to communicate data while retaining in order to retain the ability to establish a separate and distinct connection with a resource outside of the private ~~corporate~~-network, the virtual private network access server providing such that the external client becomes part of access to the private ~~corporate~~-network and therefore can access one or more internal resources as though the external client is part of the private ~~corporate~~-network which are otherwise inaccessible to external clients; and

during at least a portion of the step for securely connecting while securely connected to the virtual private network access server, a specific act of accessing the resource outside of the private ~~corporate~~-network.

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20. (Currently Amended) A method in accordance with Claim 19, wherein the step for securely connecting to the private ~~corporate~~ network comprises the following:

a specific act of the external client establishing a connection with the private ~~corporate~~ network over the public network using the communication device;

a specific act of the external client providing security to the connection; and

a specific act of the external client maintaining a session that uses the secure connection to communicate with the private ~~corporate~~ network; and

~~during at least a portion of the specific act of the external client maintaining a session that uses the secure connection, a specific act of the communication device retaining the ability to establish a separate and distinct connection with another resource outside of the private corporate network.~~

21. (Original) A method in accordance with Claim 11, wherein the public network comprises portions of the Internet.

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22. (Currently Amended) In a network environment that includes a public network and a private ~~corporate~~ network connected to the public network, the public network including a client external to the private ~~corporate~~ network, a method of a server computer system within a private ~~corporate~~ network establishing a secure connection with a communications device of the external client without restricting the communications device to working through the private ~~corporate~~ network, the method comprising ~~the following;~~ following:

a specific act of a virtual private network access server within the private ~~corporate~~ network facilitating the establishment of a connection with the external client over the public network, the virtual private network server providing such that it is as though the external client access to is part of the private ~~corporate~~ network and therefore can access one or more internal resources of as though the external client is part of the private ~~corporate~~ network which are otherwise inaccessible to external clients; and

a specific act of the server computer system facilitating the providing of security to the connection through a communication protocol that resides at or above a socket layer in a protocol stack used to communicate data, wherein the secure connection is established while allowing the external client to maintain the ability to establish a separate and distinct connection directly with one or more external resources rather than having to route communication with the one or more external resources through the private ~~corporate~~ network.

23. (Previously Presented) A method in accordance with Claim 22, wherein the public network comprises portions of the Internet.

24. (Original) A method in accordance with Claim 22, wherein the specific act of the server computer system facilitating the establishment of a connection with the external client comprises:

a specific act of using Transmission Control Protocol (TCP), to facilitate the establishment of a connection with the external client.

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25. (Original) A method in accordance with Claim 22, wherein the specific act of the server computer system facilitating the providing of security to the connection comprises:

a specific act of using Secure Socket Layer (SSL), to facilitate the providing of security to the connection.

26. (Original) A method in accordance with Claim 22, wherein the specific act of the server computer system facilitating the providing of security to the connection comprises:

a specific act of using Wireless Transport Layer Security (WTLS), to facilitate the providing of security to the connection.